

## **REMARKS**

Applicant respectfully requests reconsideration of the present application in view of the foregoing amendments and in view of the reasons that follow.

New claims 32 and 33 have been added.

This amendment adds, changes and/or deletes claims in this application. A detailed listing of all claims that are, or were, in the application, irrespective of whether the claim(s) remain under examination in the application, is presented, with an appropriate defined status identifier.

After amending the claims as set forth above, claims 1-33 are now pending in this application. Claims 1-17 have been withdrawn from consideration.

### **Rejections under 35 U.S.C. § 112**

Claims 21-24 and 27 are rejected under 35 U.S.C. § 112, second paragraph, as allegedly being indefinite. This rejection is respectfully traversed. Applicant respectfully submits that the amendments to the claims render these rejections moot. Reconsideration and withdrawal of these rejections is respectfully requested.

### **Rejection under 35 U.S.C. § 102**

Claims 18-20, 22-24, and 29-31 are rejected under 35 U.S.C. § 102 as allegedly being anticipated by U.S. Pub. No. 2003/0135971 to Liberman *et al.* (hereafter “Liberman”). This rejection is respectfully traversed.

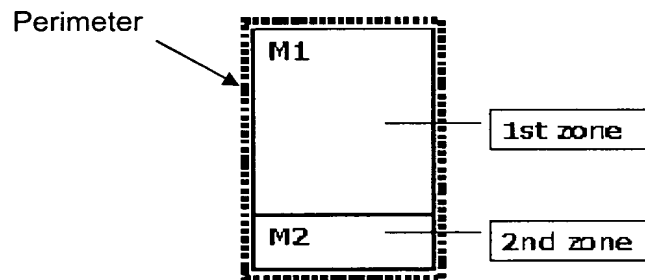
A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference. *Verdegaal Bros. v. Union Oil Co. of California*, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). See generally MPEP § 2131.

Claim 18 recites a metal fiber comprising a cross section, said cross section having a perimeter, wherein said cross section comprises at least a first zone and a second zone, each

of said zones providing a part of said perimeter, wherein said first zone comprises a first metal or metal alloy M1, said second zone comprises a second metal or metal alloy M2, wherein said M1 is different from said M2, wherein a fiber equivalent diameter of the metal fiber is equal or less than 150 $\mu$ m. Claims 29, 20, 22-24, and 29-31 depend from claim 18.

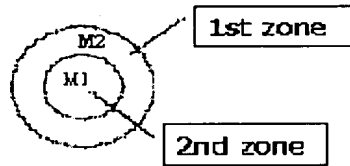
Liberman discloses a drawn metallic fiber having a diameter less than about 100 nm. See Liberman at paragraph 0009. The fiber can include a combination of a first metal and a second component, and can also contain an outer layer. See Liberman at paragraphs 0010 and 0011. The fiber can include a first region and a second region along its longitudinal axis. See Liberman at paragraph 0012. Liberman also discloses drawing wires that have been provided with sacrificial layers or cladding and wires formed by drawing concentrically aligned materials that provide claddings encased within a second cladding material. See Liberman at paragraphs 0016 and 0177.

However, Liberman does not disclose a metal fiber comprising, among other things, a cross section, said cross section having a perimeter, wherein said cross section comprises at least a first zone and a second zone, each of said zones providing a part of said perimeter, as recited in claim 18. Provided below is an annotated example of a cross section of the fiber of claim 18, showing a first zone, a second zone, and the perimeter of the cross section that is provided by the first zone and the second zone, as indicated by the dashed line. As shown in this example, the first and second zones provide the perimeter of a cross section of the fiber:



The wires of Liberman do not provide the features of claim 18. Instead, the wires of Liberman include metals, with one metal encasing or surrounding the other, as illustrated

below and described in paragraphs 0011, 0016, and 0177 of Liberman. Such metals do not each provide a part of the perimeter of the cross section shown below.



Liberman also describes a fiber that has first and second regions along the longitudinal axis of the fiber. See Liberman at paragraph 0012. However, such a fiber does not provide a fiber with a cross section having a perimeter provided by a first zone and a second zone, as recited in claim 18, because the first and second regions of such a fiber are provided at different longitudinal locations and thus cannot provide the perimeter of a cross section. Instead, the first region in this fiber of Liberman provides the perimeter for one cross section at a first longitudinal location and the second region provides the perimeter for another cross section at a different longitudinal location than the first location.

Liberman also generally discloses that the fiber can have a combination of metals, as described in paragraph 0010 of Liberman, but does not disclose that the metals provide a first zone and a second zone, with each of the zones providing a part of a perimeter of a cross section, as recited in claim 18.

For at least the reasons discussed above, Liberman does not anticipate claims 18-20, 22-24, and 29-31 because Liberman does not disclose all of the features of claim 18. Reconsideration and withdrawal of this rejection is respectfully requested.

### **Rejection under 35 U.S.C. § 103**

Claims 21 and 25-28 are rejected under 35 U.S.C. § 103 as allegedly being unpatentable over Liberman. This rejection is respectfully traversed. Claims 21 and 25-28 depend from claim 18. As discussed above, Liberman does not disclose or suggest all of the features of claim 18 and thus does not render claims 21 and 25-28 to be unpatentable.

Furthermore, Liberman does not disclose or suggest that additional features recited by claims 21 and 25-28. To the extent that the Office is taking Official Notice in regard to the features of claims 21 and 25-28, Applicant submits that these features are not commonly known or disclosed in the prior art relied upon by the Office. Applicant respectfully requests that the Office provide prior art to show these features or withdraw the rejection. See M.P.E.P. § 2144.03.

The Office argues on page 9 of the Office Action that it would have been obvious to modify the fiber of Liberman to provide the fiber of claim 28 because it would have involved routine optimization to provide the features of claim 28. However, as discussed above in regard to claim 18, Liberman does not disclose or suggest a metal fiber comprising, among other things, a cross section, said cross section having a perimeter, wherein said cross section comprises at least a first zone and a second zone, each of said zones providing a part of said perimeter, as recited in claim 18. Therefore, because Liberman does not disclose or suggest first and second zones of a first metal or metal alloy M1 and a second metal or metal alloy M2, such first and second zone cannot be optimized to control the amount of a surface of a cross section provided by each zone, as suggested by the Office. In other words, there are no first and second zones in a cross section that can be optimized in the first place.

For at least the reasons discussed above, Liberman does not render claims 21 and 25-28 to be unpatentable. Reconsideration and withdrawal of this rejection is respectfully requested.

### **New Claims**

New claims 32 and 33 have been added. Claims 32 and 33 depend from claim 18 and are allowable over the prior art for at least the reasons discussed above and for their respective additional recitations.

### **Conclusion**

Applicant submits that the present application is now in condition for allowance. Favorable reconsideration of the application as amended is respectfully requested.

The Examiner is invited to contact the undersigned by telephone if it is felt that a telephone interview would advance the prosecution of the present application.

The Commissioner is hereby authorized to charge any additional fees which may be required regarding this application under 37 C.F.R. §§ 1.16-1.17, or credit any overpayment, to Deposit Account No. 19-0741. Should no proper payment be enclosed herewith, as by a check being in the wrong amount, unsigned, post-dated, otherwise improper or informal or even entirely missing or a credit card payment form being unsigned, providing incorrect information resulting in a rejected credit card transaction, or even entirely missing, the Commissioner is authorized to charge the unpaid amount to Deposit Account No. 19-0741. If any extensions of time are needed for timely acceptance of papers submitted herewith, Applicant hereby petitions for such extension under 37 C.F.R. §1.136 and authorizes payment of any such extensions fees to Deposit Account No. 19-0741.

Respectfully submitted,

SEP 09 2009

Date \_\_\_\_\_

By



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